

CLAIM AMENDMENTS

Claim 1 - (currently amended)
Claim 2 - (original)
Claim 3 - (original)
Claim 4 - (currently amended)
Claim 5 - (original)
Claim 6 - (currently amended)
Claim 7 - (currently amended)

1. (currently amended) An improved shopping cart wheel comprising:

a wheel hub supporting a wheel thereon and having a central axial opening having inner and outer sides;

a first precision bearing unit having a rotating cylindrical central hub, an outer circular ~~toroidal~~ bearing jacket surrounding said central hub and a plurality of ball bearings rotatably mounted within said outer toroidal bearing jacket and rotatably supporting said rotating central hub therebetween;

a second precision bearing unit having a rotating cylindrical central hub, an outer toroidal bearing jacket surrounding said central hub and a plurality of ball bearings rotatably mounted within said outer circular ~~toroidal~~ bearing jacket and rotatably supporting said rotating central hub therebetween;

said first and second precision bearing units mounted within said central axial opening of said wheel hub with said first precision bearing unit adjacent one end of said central axial opening and said second precision bearing unit adjacent the opposite end of said central axial opening;
and

said central hub of said first precision bearing unit contacting said central hub of said second precision bearing unit in generally coaxial alignment within said central axial opening at the midpoint of said central axial opening; and such that said improved shopping cart wheel will

1 withstand greater side load forces and have increased weight-carrying capacity.

2
3 a generally cylindrical metal spanner tube extending between and connecting said central hubs of
4 said first and second precision bearing units in generally coaxial alignment within said
5 central axial opening, said generally cylindrical spanner tube extending substantially the
6 entire combined length of said central hubs of said first and second precision bearing units
7 such that said improved shopping cart wheel has increased durability.

8
9 2. (original) The improved shopping cart wheel of claim 1 further comprising a
10 generally cylindrical metal spanner mounted within said central axial opening and extending between
11 and connecting said rotating central hubs of said first and second precision bearing units such that
12 the structural strength of said improved shopping cart wheel is increased.

13
14 3. (original) The improved shopping cart wheel of claim 1 wherein said central
15 axial opening of said wheel hub further comprises a cross-sectional step configuration wherein the
16 outer ends of said central axial opening are of greater diameter than the inner connecting section of
17 said central axial opening such that said first and second precision bearing units fit snugly and
18 securely into said central axial opening thereby minimizing wobble motion of said improved
19 shopping cart wheel when it is mounted on a shopping cart.

20
21 4. (currently amended) The improved shopping cart wheel of claim 1 wherein said
22 outer ~~circular toroidal~~ bearing jackets of said first and second precision bearing units are each
23 generally square U-shaped in cross section to provide a channel in which rotatably reside said
24 plurality of ball bearings which respectively rotatably support said central hubs of said first and
25 second precision bearing units therebetween.

26
27 5. (original) The improved shopping cart wheel of claim 1 wherein said first and
28 second precision bearing units are each sealed to generally prevent incursion of foreign objects into

1 said first and second precision bearing units and the need for lubrication of said first and second
2 precision bearing units is generally eliminated.

3
4 6. (currently amended) In combination:

5
6 a shopping cart including a plurality of wheel-mounting brackets, each of which further includes a
7 mounting pin operative to rotatably mount a wheel on one of said plurality of wheel-
8 mounting brackets; and

9
10 an improved shopping cart wheel comprising:

11
12 a wheel hub ~~supporting a wheel thereon and~~ having a central axial opening having inner and
13 outer sides;

14
15 a first precision bearing unit having a rotating cylindrical central hub, an outer circular
16 ~~toroidal~~ bearing jacket surrounding said central hub and a plurality of ball bearings
17 rotatably mounted within said outer circular ~~toroidal~~ bearing jacket and rotatably
18 supporting said rotating central hub therebetween;

19
20 a second precision bearing unit having a rotating cylindrical central hub, an outer circular
21 ~~toroidal~~ bearing jacket surrounding said central hub and a plurality of ball bearings
22 rotatably mounted within said outer circular ~~toroidal~~ bearing jacket and rotatably
23 supporting said rotating central hub therebetween;

24
25 said first and second precision bearing units mounted within said central axial opening of
26 said wheel hub with said first precision bearing unit adjacent one end of said central
27 axial opening and said second precision bearing unit adjacent the opposite end of said
28 central axial opening; ~~and~~

1 said central hub of said first precision bearing unit contacting said central hub of said second
2 precision bearing unit in generally coaxial alignment within said central axial
3 opening at the midpoint of said central axial opening; and generally adjacent said
4 central hub of said second precision bearing unit in generally coaxial alignment
5 within said central axial opening such that said improved shopping cart wheel will
6 withstand greater side load forces and have increased weight-carrying capacity.

7
8 a generally cylindrical metal spanner tube extending between and connecting said central hubs of
9 said first and second precision bearing units in generally coaxial alignment within said
10 central axial opening, said generally cylindrical spanner tube extending substantially the
11 entire combined length of said central hubs of said first and second precision bearing units
12 such that said improved shopping cart wheel has increased durability.

13
14 7. (currently amended) An improved shopping cart wheel comprising:

15
16 a wheel hub supporting a wheel thereon and having a central axial opening having inner and outer
17 sides;

18
19 a first precision bearing unit having a rotating cylindrical central hub, an outer circular toroidal
20 bearing jacket surrounding said central hub and a plurality of ball bearings rotatably mounted
21 within said outer circular toroidal bearing jacket and rotatably supporting said rotating central
22 hub therebetween;

23
24 a second precision bearing unit having a rotating cylindrical central hub, an outer circular toroidal
25 bearing jacket surrounding said central hub and a plurality of ball bearings rotatably mounted
26 within said outer circular toroidal bearing jacket and rotatably supporting said rotating central
27 hub therebetween;

1 said first and second precision bearing units mounted within said central axial opening of said wheel
2 hub with said first precision bearing unit adjacent one end of said central axial opening and
3 said second precision bearing unit adjacent the opposite end of said central axial opening;
4 and

5
6 said central hub of said first precision bearing unit contacting said central hub of said second
7 precision bearing unit at the midpoint of said central axial opening in generally coaxial
8 alignment within said central axial opening;

9
10 a generally cylindrical metal spanner tube extending between and connecting said central hubs of
11 said first and second precision bearing units in generally coaxial alignment within said
12 central axial opening, said generally cylindrical spanner tube extending substantially the
13 entire combined length of said central hubs of said first and second precision bearing units
14 such that said improved shopping cart wheel has increased durability.